

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

BUTLER'S GARTERSNAKE STAKEHOLDER NEWSLETTER

DECEMBER 2006

DATA GATHERING - STAKEHOLDER WORKSHOP PREPARATION

On December 4th and 5th, 16 scientists and land use experts met to discuss and exchange data concerning Butler's gartersnake distribution, movement patterns, genetics, birth/death rates, ecology, and previous and projected land use in the species range. Video of the meeting was broadcast live over the internet, allowing additional scientists from Maryland, Ohio, and Tennessee to participate. Archived video of the meeting can be viewed until June 2007 at <http://www.uwex.edu/ics/stream/dnr/ber/>

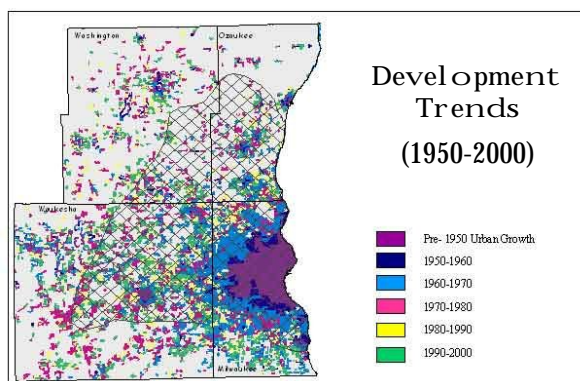
This meeting was part of a data gathering process used by the Conservation Breeding Specialist Group (CBSG) to develop a Population Viability Analysis (PVA) model that will be presented at the Stakeholder Workshop in February, where a continuation of discussions on risk assessment and management

scenarios will take place. CBSG asked the group to generate a list of questions (see below) to help guide them.

Using estimates of life history demographics (like birth/death rates, number of offspring) CBSG will simulate the model with different combinations of the low and high values of each estimate to make sure that all uncertainty is accounted for. This provides a way to measure the sensitivity of results to each estimate. This sensitivity analysis is especially important for the Butler's gartersnake, as the group had to make many demographic assumptions using detailed information from closely related species, as some life history demographics are not known for Butler's gartersnakes. This

data gathering process is often used to highlight research needs.

The predictive PVA model CBSG builds will be relative, not absolute. For example, it is the relative difference



between responses to different management scenarios that will be important and will be used to facilitate the discussions and decisions that the will take place at the Stakeholder Workshop in February.

Viability Questions

- What are the optimal management strategies for snake and people?
- What are the impacts of future habitat loss/degradation/modifications (if any) on viability?
- What is the impact of metapopulation structure (if any)?
- How much connectivity between sites is enough and where is it important?
- How big is big enough (habitat size / number of individuals)?
- How much risk can be accepted?
- How many sites are necessary?
- Is translocation a viable conservation strategy?
- What is the value of lower habitat quality and/or smaller sites for population connectivity and maintenance of genetic diversity?

Fun facts about Butler's gartersnakes shared at the meeting include: 1) Butler's do not cross roads; 2) they do not "right" themselves as quickly as other gartersnakes when flipped upside down during cold weather; 3) they breed in both the spring and the fall, although young are born only in the summer, as the sperm is stored until spring; 4) they, like most gartersnakes, are flexible in their ability to live in low quality habitat; and 5) they, unlike other gartersnakes, do not tend to bite or squirm when handled.

BUTLER'S GARTERSNAKE HABITAT ASSESSMENT TRAINING

On Thursday, March 29th, the Department will offer Butler's gartersnake consulting training in order to increase the number of consultants qualified to conduct habitat assessments and develop conservation plans for Tier

3 properties. The six-hour training session will have a classroom and field component where participants will become familiar with all aspects of Butler's consulting.

Training will occur 9 a.m.-3 p.m. at Havenwoods Nature Center, 6141 Hopkins Street, Milwaukee.

To register, call Bob Hay at 608-267-0849 or e-mail Robert.Hay@wi.gov

GENETICS STUDY RESULTS ALTER BUTLER'S GARTERSNAKE RANGE

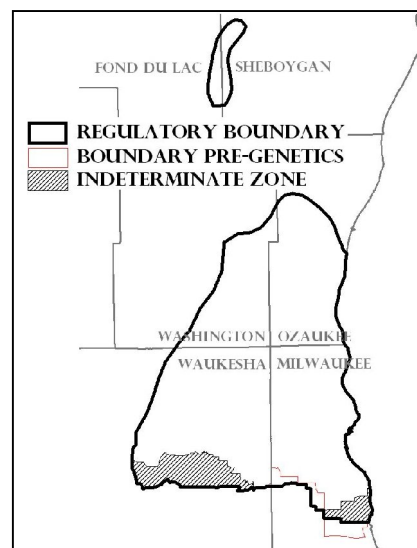
Results of a mitochondrial DNA genetics study of the Butler's gartersnake, plains gartersnake and hybrids has altered the regulatory boundary for the Butler's gartersnake. However, there were insufficient data to finalize the southern boundary; thus there is a temporary Indeterminate Zone currently in place. The WDNR has funding to conduct snake surveys and analysis within the Indeterminate Zone in 2007 in order to define the southern boundary of the regulation area.

The map to the right shows the regulatory boundary based on the genetics study, which is 435 acres smaller

and results in a loss of five occupied Tier 3 sites, and a gain of four Tier 3 sites that were previously classified as hybrids.

Additional study findings include:

- The Wisconsin Butler's gartersnake was reaffirmed as a distinct species from the common gartersnake and the plains gartersnake; and differs significantly from the eastern Butler's populations in Michigan and Ohio.
- Hybridization between Butler's and plains gartersnakes is occurring.
- The morphological analysis developed in 2003 was corroborated.



STAKEHOLDER RESPONSES

Many thanks to those of you who have sent in a completed Stakeholder Response Form. Please keep them coming via fax or mail. Make sure to include what issues, concerns, questions, &/or wishes you have and would like to have addressed prior to or during the Stakeholder Workshop in February.

Issues/Topics reported to date

- Examine temporary versus permanent construction impacts
- Maintain a regulatory framework that provides a simplified/fast permit process for small/lesser impact/temporary disturbance types of projects
- Protect public lands before private lands
- Build consensus on science
- Review historic land use
- Protect species and ensure long-term survival, while providing flexibility in regulatory requirements
- Determine amount of protection needed (and amount of allowable takings)
- Explore if/how translocation is feasible
- Explore possible compensation for private landowners
- Create strategies to satisfy all stakeholders
- Explore idea of buffers and conservation easements
- Explore idea of habitat mitigation banking
- Determine management responsibilities
- Set Conservation Strategy and species status review intervals/periods
- Determine data/research needs

For More Information Contact:

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